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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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04/14/2004

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EXAMINER

SMITH, PHILIP ROBERT

ART UNIT

PAPER NUMBER

3739

MAIL DATE

DELIVERY MODE

06/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/823,833	Applicant(s) ISHIHARA ET AL.	
	Examiner Philip R. Smith	Art Unit 3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6 and 8-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6 and 8-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f):
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

- [01] The objection to the specification set forth in the Office action of 12/7/2006 are withdrawn in view of the amendments of 4/9/2007.

Claim Rejections - 35 U.S.C. 112, Paragraph Two

- [02] The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- [03] Claims 6,8-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- [04] Applicant recites a "position adjusting means for adjusting the relative positional relation between the end face of the fiber bundle close to the light source such that the light emitted from the light source is incident on the fiber bundle." Defining a relation between 'A' and 'B' requires that 'A' and 'B' be recited. One can not adjust the positional relation between 'A'.
- [05] As recited, 'A' represents "the end face of the fiber bundle close to the light source." 'B' is presumed to be "the light source."
- [06] Accordingly, Applicant's recitation of the position adjusting means will be interpreted as follows: "position adjusting means for adjusting the relative positional relation between the end face of the fiber bundle close to the light source [and the light source] such that the light emitted from the light source is incident on the fiber bundle."

Claim Rejections - 35 USC § 102

- [07] The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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[08] The rejection of claims 6,8-11 as being anticipated by Sasaki or Takeuchi set forth in the Office action of 12/7/2006 are withdrawn in view of the amendments of 4/9/2007.

Claim Rejections - 35 USC § 103

[09] The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

[10] Claims 6,8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (7,087,014) in view of Riek (6,001,084).

[11] With regard to claim 6:

[11a] Sasaki discloses an optical imaging system comprising:

- a light source ("white LED 27," 5/61) for emitting light;
- a small-diameter probe ("insertion portion 12," 5/1) having a distal end;
- a fiber optic bundle ("fiber-optic light guide 17," 5/66), arranged in the probe, for guiding light from the light source to the tissue;
- light detecting means ("objective glass," 4/59) for detecting light received through the distal end of the probe;
- image generating means ("TV monitor," 4/61) for generating an image on the basis of signals obtained by the light detecting means;
- connecting means ("video processor 15," 4/63, comprising "socket 15b," 4/49) for detachably connecting the probe to the light source; and
- position adjusting means ("auxiliary lighting device 18...an operating position... and a retracted position," 5/18-29) for adjusting the relative positional relation between the

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end face of the fiber bundle close to the light source such that the light emitted from the light source and is incident on the fiber bundle.

[11b] Sasaki does not disclose:

- a needle portion for puncturing and insertion into the tissue.

[11c] Riek discloses in 4/1-7 that a "distal or forward end of cannula tube 10 is ground oblique, so that a sharp tip 12 is formed which serves for penetration of the tissue." At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include a needle point at the distal tip of the probe disclosed by Sasaki. A skilled artisan would be motivated to do so in order to allow inspection of tissue to which access is not provided by a natural orifice.

[12] With regard to claim 8: Sasaki discloses that the position adjusting means is arranged inside the connecting means ("[t]he video processor 15 is provided therein with an auxiliary lighting device 18," 4/63-64).

[13] With regard to claim 9: Sasaki discloses an automatic control means (7/25-35) for automatically controlling the position adjusting means:

If the main lamp 16 goes out accidentally, a detector circuit (not shown) connected to the aforementioned controller that is provided in the auxiliary lighting device 18 detects this failure in the main lamp 16. Upon this detection by the detector circuit, the controller switches ON the white LED 27 and actuates the rotary solenoid S at the same time. Upon the commencement of operation of the rotary solenoid S, the rotary plate 26 rotates about the pivot 25a clockwise as viewed in FIG. 4 to move from the non-operational position shown in FIG. 4 to an operational position shown in FIG. 5.

[14] With regard to claim 10: Sasaki discloses first converging means ("positive lens 29," 5/58), arranged between the end face of the fiber optic bundle close to the light source and the light source, for

converging the light from the light source to the fiber bundle, wherein the position adjusting means adjusts the relative positional relation between the first converging means and the end face of the fiber optic bundle close to the light source ("[a] lens holder 28 which holds a positive lens 29 is fixed to the front of the LED holder 27a...", 5/58-60).

- [15] With regard to claim 11: Sasaki discloses that the position adjusting means adjusts the position of the first converging means (7/25-35, as noted above).
- [16] With regard to claim 12: Sasaki in view of Riek discloses that the light to be detected by the light detecting means may be light from inside or deep part of the tissue.

Additional Claim Rejections - 35 USC § 103

- [17] Claims 6,8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi (5,800,343) in view of Riek (6,001,084).
- [18] With regard to claim 6:
- [18a] Takeuchi discloses an optical imaging system comprising:
- a light source ("lamp 11," 4/45) for emitting light;
 - a small-diameter probe ("insertion rod 2," 4/5) having a distal end;
 - a fiber optic bundle ("light guide 16S," 4/58), arranged in the probe, for guiding light from the light source to the tissue;
 - light detecting means ("observation window 6," 4/8) received through the distal end;
 - image generating means (an endoscope inherently has a display or eyepiece) for generating an image on the basis of signals obtained by the light detecting means;
 - connecting means ("light source 10," 4/61) for detachably connecting the probe to the light source; and

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- position adjusting means ("light guide connector 8S," 5/57, having "V-shaped groove 33S" and "set screws 34," 6/4-29) for adjusting the relative positional relation between the end face of the fiber bundle close to the light source such that the light emitted from the light source is incident on the fiber bundle.

[18b] Takeuchi does not disclose:

- a needle portion for puncturing and insertion into the tissue.

[18c] Riek discloses in 4/1-7 that a "distal or forward end of cannula tube 10 is ground oblique, so that a sharp tip 12 is formed which serves for penetration of the tissue." At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include a needle point at the distal tip of the probe disclosed by Takeuchi. A skilled artisan would be motivated to do so in order to allow inspection of tissue to which access is not provided by a natural orifice.

[19] With regard to claim 8: Takeuchi discloses that the position adjusting means is arranged inside the connecting means (see Figs 3, 4, 5).

[20] With regard to claim 9: Takeuchi discloses the claimed invention except for automatic control means for automatically controlling the position adjusting means. It would have been obvious to one having ordinary skill in the art at the time the invention was made to automate the position control instructed by Takeuchi, since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192. A skilled artisan would be motivated to do so in order to maneuver the components with greater precision, or relieve the operator of laborious adjustment.

- [21] With regard to claim 10: Takeuchi discloses first converging means (comprising "condenser lens 13," 5/66, and "corrective lens 22S," 5/17), arranged between the end face of the fiber optic bundle close to the light source and the light source, for converging the light from the light source to the fiber bundle, wherein the position adjusting means adjusts the relative positional relation between the first converging means and the end face of the fiber optic bundle close to the light source (5/39-56).
- [22] With regard to claim 11: Takeuchi discloses that the position adjusting means adjusts the position of the first converging means ("corrective lens 22S" composes adaptor pipe 20S," which is adjustable as directed in 6/4-29, as noted above).
- [23] With regard to claim 12: Takeuchi in view of Riek discloses that the light to be detected by the light detecting means may be light from inside or deep part of the tissue.

Response to Arguments

- [24] Applicant's arguments filed 4/9/2007 have been fully considered but they are not persuasive.
- [25] Applicant contends that neither Sasaki nor Takeuchi are capable of puncturing tissue. The claims have been amended to include this feature, and a new grounds of rejection has been provided to address this limitation.
- [26] Applicant asserts that "Sasaki's position adjusting means ... is not equivalent, either functionally or structurally, to Applicant's claimed position adjusting means." Applicant makes no showing that Sasaki is incapable of "adjusting the relative positional relation between the end face of the fiber bundle close to the light source." Sasaki explicitly provides an LED which has two possible positions, and moves independently of the end face of the fiber bundle. Such an arrangement is inherently capable of the recited function.

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[27] Applicant asserts that "Applicant's connecting means is functionally and structurally distinct," but provides no specific argument.

[28] With regard to Takeuchi, Applicant once again asserts that Takeuchi does not show specific elements within the claims, but provides no specific contentions to be addressed.

Conclusion

[29] Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

[30] A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

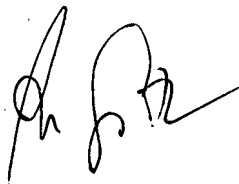
[31] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip R. Smith whose telephone number is (571) 272 6087 and whose email address is philip.smith@uspto.gov. The examiner can normally be reached between 9:00am and 5:00pm.

[32] If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on (571) 272 4764.

[33] Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained

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from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'A. H. H.', located on the left side of the page.A handwritten signature in black ink, appearing to be 'L. C. M. Dvorak', located on the right side of the page.

LINDA C. M. DVORAK
SUPERVISORY PATENT EXAMINER
GROUP 3700